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A REVIEW OF THE BOOK
"ELECTRICAL MEASUREMENTS OF NONELECTRICAL QUANTITIES"

F. Ye. Temnikov, R. R. Kharchenko
 Gosenergoizdat, 1948, 348 pp; 17 Rubles, 50 Kopeks

Reviewed by
 S. A. Ginzburg, Cand Tech Sci

The book is divided into two parts: the first, "Units of Measuring Equipment," was written by R. R. Kharchenko, and the second, "Measuring Equipment," was written by F. Ye. Temnikov. However, the two parts are not coordinated, and the work actually should be considered two separate books.

The first five chapters of the book discuss, respectively: "Electrical Transmitting Elements (thermoelements, photoelements, etc.)," "Circuit Theory (self-balancing bridges, automatic potentiometers, etc.)," "Rectifier Circuits," "Current and Voltage Regulators," and "Electronic Amplifiers." Although most of this information is rather elementary, the chapter on rectifier circuits contains an excellent review of control circuits using rectifiers (phase-sensitive rectifier circuits).

The second part of the book is devoted to the description of apparatus for electrical measurement of nonelectrical quantities. Chapters 6 to 14, respectively, discuss: "Electrical Tensometers and Micrometers," (6, 7, and 8), "Electrical Liquid Analyzers," "Electrical Gas Analyzers," "Electrical Compasses," "Electrical Locators," and "Universal Measuring Apparatus." This reviewer believes that the chapters on electrical compasses and locators have no place in this book. It is interesting to note that the chapter on electrical gas analyzers is devoted in full to the mass spectrometer. In the chapter on universal measuring installations, no mention was made of high-speed electronic autopotentiometers, particularly the contemporary Soviet model. In the same chapter, in discussing autopotentiometers

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with static compensation, no information was given on the widely used photo-electric potentiometers and the very promising potentiometers with magnetic amplifiers as zero indicators.

In summation, it should be said that while the book describes foreign instruments in too much detail, it also contains good information on contemporary Soviet instruments in this field.

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